



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/891,038	06/25/2001	Matthias Wandel	555255012248	9468

7590 01/16/2007
Joseph M. Sauer, Esq.
Jones, Day, Reavis & Pogue
North Point
901 Lakeside Avenue
Cleveland, OH 44114

EXAMINER

BENGZON, GREG C

ART UNIT	PAPER NUMBER
----------	--------------

2144

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/16/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/891,038

Applicant(s)

WANDEL ET AL

Examiner

Greg Bengzon

Art Unit

2144

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 67-70 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 67-70 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This application has been examined. Claims 1-66,71-80 have been cancelled.

Claims 67-70 are pending.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/13/2006 has been entered.

Priority

This application claims benefits of priority from application 60/214080 filed on June 27, 2000.

The effective date of the claims in this application is June 27, 2000.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 67-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (US Patent 6535493), in view of Hall et al. (US Patent 6414962).

Lee disclosed of a communication protocol for critical on-site communications for mobile units using base stations connected to a LAN. Initially, the process of FIG. 8 checks whether it has received a packet from a wired network such as from the Ethernet network in step 422. If not, the process is idled at step 422 until a packet has been received from the wired network. From step 422, the process of FIG. 8 checks whether the requesting packet is an ARP request in step 424. If so, the process of FIG. 8 further checks whether or not the current AP is acting as a home agent in step 428. If the AP is not acting as home agent, the process loops back to step 422 to repeat the incoming packet routing process. Alternatively, if the current AP is acting as the home agent in step 428, a proxy ARP response is sent in step 430.

Lee disclosed (re. Claim 67) a plurality of local base stations coupled to a local area network (LAN), the local base stations being configured to send and receive data

Art Unit: 2144

over the LAN and to communicate wirelessly with the plurality of mobile devices (Lee - Column 4 Lines 15-60) ; the plurality of local base stations each having a network address on the LAN and are configured to send and receive data over the LAN using the network addresses (Lee - Column 4 Lines 15-60); a subscription server (Lee- ' ARP server', Column 11 Lines 12-25) operating on the LAN that is configured to identify the local base stations covering one or more of the mobile devices, the subscription server enabling the local-area wireless communication system to locate mobile devices that are in communication with the local-area wireless communication system (Lee - Figures 4 thru 6, Column 9 Lines 10-65);

However, Lee did not disclose (re. Claim 67) locating mobile devices without requiring communication between the plurality of base stations. Lee did not disclosed (re. Claim 67) wherein each local base station being configured to maintain a routing cache based on communications received from other local base stations, the routing cache identifying which of the plurality of local base stations were last in contact with mobile devices from which the communications were initiated; and each local base station being further configured to route an outgoing communication directed to a particular mobile device through a different local base station using the routing cache without requiring the local base station to access the subscription server and without sending information to other base station not involved in the communication, and wherein the base stations only access the subscription server when the routing information is not available in the local base station cache.

Hall disclosed (re. Claim 67) each local base station being configured to maintain a routing cache (Hall-Column 5 Lines 30-35) based on communications received from other local base stations (Column 2 Lines 15-20, Column 4 Lines 50-55), the routing cache identifying which of the plurality of local base stations were last in contact with mobile devices (Hall-Column 4 Lines 5-10) from which the communications were initiated; and each local base station being further configured to route an outgoing communication directed to a particular mobile device through a different local base station (Column 5 Lines 5-10) using the routing cache without requiring the local base station to access the subscription server (Hall-Column 5 Lines 30-35). Hall disclosed (re. Claim 67) locating mobile devices without requiring communication between the plurality of base stations (Hall- Column 4 Lines 5-10). Hall disclosed (re. Claim 67) without sending information to other base station not involved in the communication (Hall- Column 4 Lines 5-10). Hall disclosed (re. Claim 67) wherein the base stations only access the subscription server when the routing information is not available in the local base station cache. (Hall-Column 2 Lines 50-55, Column 5 Lines 30-35)

The Examiner notes that the term 'base station' is used very broadly in the networking art. Since the Applicant specifications do not provide a clear and concise definition of the term, the Examiner is interpreting 'base station' as the apparatus enabling a mobile device to access another network. The combination of Hall's Visiting

Art Unit: 2144

PSN and Gateway PSN is equivalent to the Applicant's base station, since said combination enables Hall's mobile device to communicate with another network.

Furthermore, it would have been well known in the art that the external communication network disclosed by Hall would have included a Local Area Network. Thus, the combination of Hall's Visiting PSN and Gateway PSN is equivalent to the Applicant's base station as connected to a LAN.

The Examiner also interprets Hall's Visitor Location Register as equivalent to the Applicant's subscription server. While Hall does not specifically mention how the VLR is implemented, it would have been well-known in the art that VLR's often comprise a database running on a server.

Lee and Hall are analogous art because they present concepts and practices regarding the registration of mobile nodes and routing packets to and from mobile nodes in both home and foreign domains. At the time of the invention it would have been obvious to combine the teachings of Hall regarding a routing cache in the base station. The motivation for said combination would have been, as Hall suggests (Hall-Column 2 Lines 25), to reduce the number of access to the subscription server [VLR].

Lee-Hall disclosed (re. Claim 69) wherein each local base station includes a subscription list that identifies the mobile devices currently covered by the identified base station (Hall-Column 3 Lines 50-55).

Lee-Hall disclosed (re. Claim 70) wherein the local base stations are configured to purge from the route cache data relating to any mobile device to which the local base station has not been in communication for a predefined interval of time. (Lee-Column 9 Lines 20-25, '*de-registration*', Column 11 Lines 25-30)

Lee-Hall disclosed (re. Claim 68) wherein the subscription server also logs subscription information for one or more of the mobile devices (Lee - Figures 4 thru 6, Column 9 Lines 10-65);

Response to Arguments

Applicant's arguments have been considered but are moot in view of new ground(s) of rejection presented for Claims 67-70.

The Examiner acknowledges the Applicant affidavit filed 10/06/2006 presenting evidence disqualifying the Magret reference as prior art. The Examiner is thus presenting new prior art by Hall .

Conclusion

Examiner's Note: Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure

Art Unit: 2144

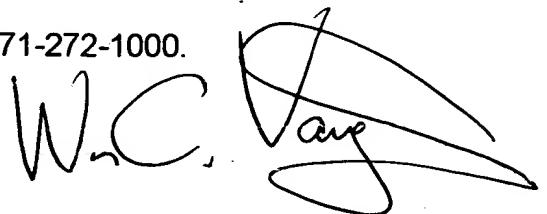
relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please refer to the enclosed PTO-892 form.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Greg Bengzon whose telephone number is (571) 272-3944. The examiner can normally be reached on Mon. thru Fri. 8 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Vaughn can be reached on (571)272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



WILLIAM VAUGHN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

